

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
GENERAL NURSING DEPARTMENT
FINAL EXAMINATION: DECEMBER 2009

COURSE TITLE: HUMAN ANATOMY

COURSE CODE: HSC 110

MARKS ALLOCATED: 80

TIME ALLOCATED: TWO (2) HOURS

INSTRUCTIONS:

1. THERE ARE TWO (2) SECTIONS IN THIS PAPER
 - i) SECTION 1A IS MULTIPLE CHOICE AND 1B IS MATCHING
 - ii) SECTION II IS SHORT ANSWERS
2. PLEASE ANSWER ALL SECTIONS
 - i) SECTION I CARRIES 40 MARKS
 - ii) SECTION II CARRIES 40 MARKS
3. USE ANSWER SHEET FOR ALL YOUR ANSWERS

NB: DO NOT OPEN THE QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

SECTION 1A: MULTIPLE CHOICE

Choose the most correct answer and write the corresponding alphabet on your answer book.

1. Parietal membrane lines: -
 - A. The heart
 - B. The lungs
 - C. The intestines
 - D. The walls of the ventral cavity

- 2 This statement is not true about microvilli : -
 - A. They are minute finger-like projections
 - B. They increase the surface area of absorptive cells
 - C. They are abundant in tissues with great mechanical stress
e.g: heart muscles
 - D. They are abundant in kidney tubules

3. The arc shaped bone of the pelvic girdle is the : -
 - A. Ilium
 - B. Pubis
 - C. Ischium
 - D. Femur

4. Gap junctions are: -
 - A. Anchoring junctions
 - B. Impermeable junctions
 - C. Abundant in the skin
 - D. Nexus

5. This extra-cellular solution will result in cell shrinkage: -
 - A. Hypotonic
 - B. Isotonic
 - C. Hypertonic
 - D. All of the above

6. Protein synthesis occurs in the: -
 - A. Golgi apparatus
 - B. Lysosome
 - C. Ribosomes
 - D. Endoplasmic reticulum

7. ATP is produced by the: -
- A. Rough endoplasmic reticulum
 - B. Mitochondria
 - C. Smooth endoplasmic reticulum
 - D. Ribosomes
8. Cyanosis is: -
- A. Lack of melanin.
 - B. Pink skin colour due to adequate oxygen supply
 - C. Bluish skin colour due to inadequate oxygen supply
 - D. None of the above
9. Using the rule of nine, burns of the anterior trunk are equal to: -
- A. 36%
 - B. 9%
 - C. 4.5%
 - D. 18%
10. This **is not** the function of the integumentary system: -
- A. Re-modelling
 - B. Excretion
 - C. Protection
 - D. Storage
11. The Urinary bladder is located in the: -
- A. Right lumbar region
 - B. Epigastric region
 - C. Hypogastric region
 - D. Left iliac region
12. In an anatomical position: -
- A. Palms face towards midline
 - B. Palms face posteriorly
 - C. Palms face superiorly
 - D. Palms face anteriorly
13. This **is not** the function of bones: -
- A. Blood cell formation
 - B. Hemopoiesis
 - C. Protection
 - D. Excretion

14. Typical macroscopic structure of long bones: -

- A. Diploe
- B. Spine
- C. Diaphysis
- D. Body

15. The largest skull opening is: -

- A. Foramen ovale
- B. Foramen magnum
- C. Foramen lacerum
- D. Jugular foramen

16. The Keystone bone of the skull is: -

- A. The mandible
- B. The sphenoid
- C. The parietal
- D. The occipital

17. The Atlas: -

- A. C2
- B. Axis
- C. Has a den
- D. Allows nodding to indicate «yes»

18. The Axis: -

- A. Is C1
- B. Allows nodding to indicate «yes»
- C. Allows nodding to indicate «no»
- D. Is the atlas

19. The Coccyx is formed:-

- A. By 5 fused bones
- B. By 4 fused bones
- C. By 5 loose bones
- D. By the largest and the strongest vertebrae

20. Vertebral ribs are: -

- A. False ribs
- B. Floating ribs
- C. True ribs
- D. None of the above

21. The diamond shaped fontanel is the:-
A. Anterior fontanel
B. Mastoid fontanel
C. Sphenoidal fontanel
D. Posterior fontanel
22. The Epimysium is: -
A. A symbol muscle fibre
B. A fascicle
C. An overcoat surrounding the whole muscle
D. A tendon
23. The most devastating skin cancer affect this cells :-
A. keratinocytes
B. basal cells
C. melanocytes
D. markel cells
24. A blister is :-
A. cyst
B. separation of the epidermis and stratum spinosum by fluid
C. separation of the dermis and epidermis by fluid
D. separation of two cells by water
25. This layer of the skin is used for finger prints.
A. reticular layer
B. papillary layer
C. stratum lucidum
D. stratum granulosum
26. The most painful burn is :-
A. a blister
B. 1st degree burn
C. 2nd degree burn
D. 3rd degree burn
27. ABCDE are cardinal signs of :-
A. basal cell carcinoma
B. malenoma
C. alphabets
D. squamous cell carcinoma

28. Terminal hair is :-

- A. soft hair
- B. body hair of children
- C. axilla hair
- D. none of the above

29. Healing of this burn is through proliferation of epithelial tissue from the sides.

- A. 3rd degree burn
- B. 2nd degree burn
- C. 1st degree burn
- D all of the above

30. Desmosomes are abundant in:-

- A. Skin
- B. Intestines
- C. Kidneys
- D. None of the above

SECTION 1B: MATCHING

Using the statement in column 1 choose the most correct response in column 2.

Column 1:

1. Osteon
- 2 Nervous tissue
3. Appositional growth
4. Fibroblast
5. Fibroclast
6. Hyoid bone
- 7 .Melanin, heamoglobin
- 8 Knee joint
- 9 Temporomandibular joint
- 10 Sphenoid bone

Column 2:

- A. Movable joint of the skull
- B. Pigments responsible for skin color
- C. Bone germinators
- D. Keystone bone of the skull
- E. Bone without a joint.
- F. Bone breaker
- G. Haversion system
- H. Joint that bears most body weight
- I. Bone growth in diameter
- J. zero regenerative capacity

Section Two

Short answers

Answer all questions in this section

Question 1

A. Using the anatomist language, define the following terms. (4)

1. cytology
2. histology
3. bone remodeling
4. osteon

B. List three different types of simple epithelial tissue and one function of each type. (6)

(MARKS 10)

Question 2

A. State the functions of the following cells.(5)

1. Macrophages
2. Nerve cell
3. Skeletal cell
4. Epithelial cell
5. Sperm cells

B. Name the main function of the following cytoplasm organnels (5)

1. Mitochondria
2. Rough endoplasmic reticulum
3. Lysosome
4. Ribosomes
5. Golgi apparatus

(Marks 10)

QUESTION 3

A. With the aid of a diagram, describe the structure of the plasma membrane. (10)

(Marks 10)

QUESTION 4

A. With the aid of a diagram describe macroscopic structure of the femur.

(MARKS 10)